

REMARKS

Pursuant to the election by applicant of Group I, inclusive of claims 1-6, applicant hereby cancels non-elected claim 7.

The rejection of claims 1-6 under 35 USC 103(a) as being unpatentable over Akiyama et al (USP 6,560,024) in view of Hanabusa et al (JP 09 113 361) is respectfully traversed. Applicant has amended claim 1 to make it clear that the appearance inspection apparatus of the subject invention alternately switches between each of the multiple light sources to create different lighting states from each of the lighting sources respectively. The memory control unit stores the image data corresponding to the projected light produced from each light source and the analysis unit functions to correct the shading resulting from the image data for each of the different lighting states switched by the head control unit.

The Examiner has apparently attributed to the Akiyama et al reference the teaching of the subject invention by incorrectly assuming that the lighting sources in Akiyama are being alternately switched to permit the data image from each source to be stored separately in a memory control unit for shading correction which is incorrect. In the subject invention, the storage of the image data from each source permits shading correction by the analysis unit. Correction of shading as referred to in the subject application is not being performed in Akiyama or in Hanabusa. The correction for shading is taught in the subject application on page 7 and on page 13, bottom paragraph through top paragraph of page 14. The analysis unit 46 in Akiyama does not correct shading and no mention is made in either reference for correcting shading.

The analysis unit of the subject invention functions to correct the shading of the image data for each of the different lighting states. This is accomplished by maintaining the digital correction value used for correcting shading of image data corresponding to the side lighting source and slit lighting source.

As explained above, neither the Akiyama reference nor the Hanabusa reference teaches the correction of shading. The Examiner has misinterpreted the Hanabusa reference which compares a previous RGB pattern to a present RGB pattern to find a difference for the purpose of pattern matching. Shading, as taught in the subject application, and as is well known is a process that corrects unevenness in the sensitivity

of lighting and sensor. This is entirely different from the technique of pattern matching taught in Hanabusa.

Claims 2, 3 and 4 are dependent claims which depend from claim 1 and are patentable for the same reasons as given above with reference to claim 1.

The analysis unit 46 in Akiyama retrieves image data from the memory 46 in parallel while scanning and then uses a judgment criteria determined by the judgment criteria 48 to determine pass or failure. This has nothing to do with the correction of shading in the image data for each of the different light sources. Accordingly, the rejection of claims 1-4 as being unpatentable over Akiyama et al taken alone or in view of Hanabusa et al should be withdrawn.

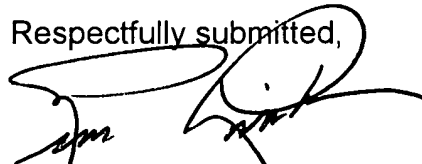
The rejection of claims 5-6 under 35 USC 103(a) as being upatentable over Akiyama et al in view of Hanabusa et al in addition to the teaching of Kishimoto et al (USP 4,978,224) is respectfully traversed. Claims 5 and 6 depend from claim 1 and are believed patentable for the same reasons as given heretofore. As explained above, there is no teaching in Akiyama for correcting shading in the image data for each of the different light states.

Kishimoto et al also does not teach or mention the correction of shading in image data stored in memory control unit for each different lighting state.

For all of the above reasons, claims 1-6 are clearly patentable over the cited references taken individually or in combination.

Reconsideration and allowance of claims 1-6 is respectfully solicited.

Respectfully submitted,



Eugene Lieberstein
Reg. No. 24,645

MAILING CERTIFICATE

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed: Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on June 20, 2006

Signed:



L. Felicetti